CONGRESSIONAL BUDGET OFFICE
COST ESTIMATE

July 18, 2007

H.R. 2701
Transportation Energy Security and Climate Change Mitigation Act of 2007

As ordered reported by the House Committee on Transportation and Infrastructure on June 20, 2007

SUMMARY

H.R. 2701 would authorize the appropriation of about $3.3 billion for programs to reduce environmental emissions from a variety of modes of transportation and to increase the energy efficiency of certain buildings operated by the federal government. The bill would establish several new grant programs to be administered by the Department of Transportation (DOT) for public transportation entities, rail carriers, and certain shippers. The bill also would establish a new commission on water resources and would implement provisions of a treaty to prevent pollution from ships. Further, the bill would require the Architect of the Capitol (AOC), the Department of Energy (DOE), the Environmental Protection Agency (EPA), the Federal Emergency Management Agency (FEMA), and the Army Corps of Engineers to complete studies and reports regarding global warming and energy efficiency. CBO estimates that implementing the bill would incur discretionary costs of $220 million in 2008, $2.6 billion over the 2008-2012 period, and $0.6 billion after 2012, assuming the appropriation of the necessary amounts.

In addition, CBO estimates that, by authorizing the General Service Administration (GSA) to enter into long-term contracts to secure public utility services, H.R. 2701 would increase direct spending by $70 million in 2008, $770 million over the 2008-2012 period, and $830 million over the next 10 years. A provision of the bill to install a photovoltaic system at the headquarters building of DOE would increase the speed of expenditures but not add to direct spending over the 2008-2012 period. Other provisions would have no significant effect on direct spending and would not affect revenues.

CBO has not reviewed subtitle B of title IV for the presence of intergovernmental or private-sector mandates. Section 4 of the Unfunded Mandates Reform Act (UMRA) excludes from the application of that act any legislative provisions that are necessary for the ratification or implementation of international treaty obligations, and CBO has determined that subtitle B falls within that exclusion. The remaining provisions of H.R. 2701 contain no intergovernmental or private-sector mandates as defined in UMRA; the bill would benefit public institutions of higher education and state and local governments.

ESTIMATED COST TO THE FEDERAL GOVERNMENT

The estimated budgetary impact of H.R. 2701 is shown in the following table. The costs of this legislation fall within budget functions 300 (natural resources and environment), 400 (transportation), and 800 (general government).

BASIS OF ESTIMATE

For this estimate, CBO assumes that H.R. 2701 will be enacted near the end of fiscal year 2007. CBO assumes that the authorized and necessary amounts will be appropriated each year and that outlays will follow historical rates of spending for similar programs.

Direct Spending and Revenues

Utility Service Contracts. H.R. 2701 would authorize GSA to sign long-term contracts of up to 30 years to secure public utility services for federal agencies. The bill specifies that GSA could use such contracts to promote the use of renewable energy systems. CBO expects GSA would use this new authority because doing so would help agencies to comply with an existing requirement to increase consumption of electricity that is generated from renewable sources (such as wind and solar energy). Under that requirement, by 2013, agencies must generate 3.75 percent of their electricity use from facilities that use renewable sources and were constructed after 1998. (According to DOE, 1 percent of the electricity consumed currently by federal agencies comes from such facilities.)

Under H.R. 2701, CBO expects that GSA would use long-term contracts to encourage investment in facilities to generate renewable electricity for federal consumption. Upon signing long-term contracts, the government would become obligated to make payments in the future, and consistent with governmentwide accounting principles, the budget should record those commitments as new obligations at the time the government enters into such contracts.

ESTIMATED BUDGETARY IMPACT OF H.R. 2701

	By Fiscal Year, in Millions of Dollars				
	2008	2009	2010	2011	2012
CHANGES IN DIRECT SPENDING					
Utility Service Contracts					
Estimated Budget Authority	230	210	200	190	0
Estimated Outlays	70	150	210	200	140
Photovoltaic System					
Budget Authority	0	0	0	0	0
Estimated Outlays	6	15	4	-25	0
Total Changes in Direct Spending					
Estimated Budget Authority	230	210	200	190	0
Estimated Outlays	76	165	214	175	140
CHANGES IN SPENDING SUBJECT TO APPROPRIATION					
Public Transportation Grants					
Authorization Level	850	850	0	0	0
Estimated Outlays	128	383	425	298	230
Rail Grants					
Authorization Level	300	300	300	300	0
Estimated Outlays	46	136	196	240	232
Maritime Transportation					
Estimated Authorization Level	54	54	54	52	1
Estimated Outlays	31	41	47	47	19
Aviation Programs					
Estimated Authorization Level	21	22	33	50	0
Estimated Outlays	6	21	31	41	21
Commission on Water Resources					
Estimated Authorization Level	2	3	3	3	1
Estimated Outlays	1	3	4	3	1
Other Programs, Reports, and Assessments					
Estimated Authorization Level	7	3	2	2	2
Estimated Outlays	4	5	2	2	2
Total Changes Subject to Appropriation					
Estimated Authorization Level	1,234	1,232	392	407	4
Estimated Outlays	221	603	708	606	503

Based on information provided by DOE about the current use of renewable electricity by federal agencies, CBO estimates that GSA would contract with utilities to build new facilities capable of producing nearly 250 megawatts of electricity. (CBO estimates that amount of capacity would generate roughly half of the renewable electricity federal agencies must consume by 2013 to meet the current-law requirement.) Based on information from the Energy Information Administration about the cost of building such facilities, we estimate that the cost per megawatt of renewable electricity capacity would average $3.3 million. That amount reflects a weighted average of capital costs for various types of renewable facilities —particularly wind and solar photovoltaic—and includes anticipated financing costs. For this estimate, we expect that most spending to build new capacity would occur over the 2008-2012 period, with facilities coming on line within three years of when construction begins.

CBO estimates that increased direct spending on contracts to obtain renewable electricity generation facilities under H.R. 2701 would cost $70 million in 2008, $770 million over the 2008-2012 period, and $830 million over the next 10 years.

Photovoltaic System. The bill would require GSA to install a photovoltaic system on the side of the headquarters building of DOE in Washington, D.C. Photovoltaic systems use solar-power technology to convert energy from the sun into electricity. The legislation would direct the department to use up to $30 million in unobligated balances in the Federal Buildings Fund, which currently has over $2 billion available, beginning in fiscal year 2008, to install the system.

CBO estimates that H.R. 2701 would modify the expected spending pattern of balances in the Federal Buildings Fund but would not increase budget authority. Based on information from DOE about the anticipated construction schedule, CBO estimates that implementing this project would cost $6 million in 2008 and $30 million over the 2008-2012 period. However, we also estimate that this project would not affect net federal outlays over the 2008-2012 period because spending on this project would be offset by decreased spending later in that period or by other GSA initiatives.

Capitol Construction Fund. The bill would add certain vessels engaged in short sea shipping on the Great Lakes Saint Lawrence Seaway System to the list of vessels for which capital construction funds may be established. By contributing to such funds, certain companies can defer income taxes on the portion of their income used for qualifying activities (for example, construction of vessels). Expanding eligibility for capital construction funds would become effective if changes to the Internal Revenue Code were made in subsequent legislation that are similar to the changes that section 402 would make to title 46. Since any changes in revenues would be contingent upon such subsequent legislation, enacting H.R. 2701 would not—by itself—have any impact on federal revenues.

Spending Subject to Appropriation

Public Transportation Grants. Section 201 would direct DOT to administer grants that would aid public transportation authorities to either reduce fares or to expand services. The bill would authorize the appropriation of $750 million annually in fiscal years 2008 and 2009 for such programs in urban areas with populations over 50,000, and $100 million in each of those two years for areas with populations under 50,000. Based on spending patterns for similar programs, CBO estimates that implementing those grant programs would cost $128 million in 2008, $1.5 billion over the 2008-2012 period, and about $220 million after 2012.

Rail Grants. Title III would establish two new grant programs, one intended to reduce emissions from trucks by using rail transportation and the other to reduce emissions generated by locomotives. The bill would authorize the appropriation of $300 million annually through 2011 for such programs. That amount includes $250 million to rehabilitate, preserve, or improve railroad track to increase the capacity of that track, and $50 million for grants to railroad carriers to purchase or refurbish locomotives that meet or exceed EPA's proposed emissions standards for locomotives and locomotive engines. CBO estimates that implementing those programs would cost $46 million in 2008, $846 million over the 2008-2012 period, and $342 million after 2012.

Maritime Transportation. Title IV would require DOT to establish a program to increase the use of a certain type of short-distance transportation of cargo by sea called short sea transportation and to establish an initiative to increase the use of technologies at United States ports and shipyards that would reduce certain air emissions. CBO estimates that he title also would implement the Protocol of 1997 to the International Convention for the Prevention of Pollution from Ships, 1973 (MARPOL) by requiring EPA and DOT to develop new regulations. CBO estimates that fully funding those programs would require appropriations totaling $215 million over the 2008-2012 period. That amount includes $100 million specifically authorized to be appropriated to DOT for a loan guarantee program to increase the use of short sea transportation and a specified $106 million for an initiative to reduce certain air emissions at ports. The remaining $9 million would be used to implement the short sea program and MARPOL regulations. Based on historical spending patterns for similar activities, CBO estimates that implementing title IV would cost $31 million in 2008 and $185 million over the 2008-2012 period, assuming appropriation of the amounts specified and estimated to be necessary.

Aviation Programs. Title V would establish two new programs aimed at improving the energy efficiency of aircraft and reducing aviation-related environmental impacts. CBO estimates that fully funding those programs would require appropriations totaling $126 million over the 2008-2011 period. That amount includes $111 million specifically authorized to be appropriated to the Federal Aviation Administration for research on aircraft technology and $15 million estimated to be necessary for DOT to fund pilot projects to mitigate aviation-related effects on noise, air quality, or water quality. Based on historical spending patterns for similar activities, CBO estimates that implementing title V would cost $6 million in 2008 and $120 million over the next five years, assuming appropriation of the necessary amounts.

Commission on Water Resources. Title VII would authorize the appropriation of $12 million to establish a commission to study the use and management of water resources in the United States. The commission also would be responsible for assessing strategies and incentives to ensure that the United States continues to have an adequate and dependable supply of water. CBO estimates that enacting this provision would cost $1 million in 2008 and $12 million over the 2008-2012 period.

Other Programs, Reports, and Assessments. Other provisions of the bill would authorize the appropriation of $16 million over the 2008-2012 period, including:

- $10 million for DOT to establish a Center for Climate Change and Environment and to complete studies and reports on climate change;

- $5 million for DOE, DOT, EPA, FEMA, the Architect of the Capitol, and the Army Corps of Engineers to complete studies on the use of pipelines to transport ethanol, the effectiveness of the short sea transportation program established in the bill, the potential impacts of climate change on water resources and water quality, the effects of climate changes on FEMA preparedness, the construction and use of energy efficient technologies within the U.S. Capitol complex, and the use of certain hydropower technologies to reduce emissions, respectively; and

- $1 million for the Architect of the Capitol to build an E-85 (a blend of motor fuel with 85 percent ethanol and 15 percent gasoline) fueling station within the Capitol complex.

CBO estimates that fully funding those activities would cost $4 million in 2008 and $15 million over the 2008-2012 period, assuming appropriation of the necessary amounts.

INTERGOVERNMENTAL AND PRIVATE-SECTOR IMPACT

Section 4 of UMRA excludes from the application of that act any legislative provisions that are necessary for the ratification or implementation of international treaty obligations. CBO has determined that title IV, subtitle B of H.R. 2701 falls within that exclusion because it would implement Annex VI of the MARPOL Convention. Consequently, CBO has not reviewed those provisions for the presence of intergovernmental or private-sector mandates.

The remaining provisions of H.R. 2701 contain no intergovernmental or private-sector mandates as defined in UMRA. The bill would benefit public institutions of higher education and state and local governments by authorizing grants for various projects to enhance energy efficiency and mitigate environmental impacts. Any costs those entities would incur to comply with conditions of federal assistance would be incurred voluntarily.

PREVIOUS CBO ESTIMATES

CBO has transmitted several cost estimates for legislation that contain certain similar provisions to those in H.R. 2701.

On June 11, 2007, CBO transmitted a cost estimate for S. 1321, the Energy Savings Act of 2007, as ordered reported by the Senate Committee on Energy and Natural Resources on May 7, 2007. That bill contained a provision similar to the one in H.R. 2701 that would require federal agencies to increase their consumption of renewable electricity generated from facilities brought into service after 1998. CBO estimated that those provisions would cost $10 million in 2008 and $150 million over the 2008-2012 period. The differences in the bills' estimated costs are reflected in their different requirements.

On February 12, 2007, and June 11, 2007, CBO transmitted cost estimates for H.R. 798, an act to direct the Administrator of General Services to install a photovoltaic system for the headquarters building of the Department of Energy, as ordered reported by the House Committee on Transportation and Infrastructure and the Senate Committee on the Environment and Public Works, respectively. The provisions in H.R. 2701 addressing the installation of a photovoltaic system are identical to those in both versions of H.R. 798.

On February 12, 2007, CBO transmitted a cost estimate for H.R. 802, the Maritime Pollution Prevention Act of 2007, as ordered reported by the House Committee on Transportation and Infrastructure on February 7, 2007. Subtitle B of title IV of H.R. 2701 is similar in scope and content to the provisions of H.R. 802, and CBO estimates that the costs to implement the provisions would be the same.

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